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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,273	02/19/2002	Masatoshi Fujimoto	046124-5114	1054

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EXAMINER

RICHARDSON, JOHN A

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,273

Applicant(s)

FUJIMOTO ET AL.

Examiner

John Richardson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Final Rejection

1). The applicant's response dated February 13 2003 (Paper No. 4) requesting reconsideration is acknowledged; it is noted that Paper No. 4 does not include any amended claims. ←

2). 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3). The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

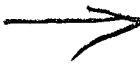
4). The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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I
5). The specification is objected to under 35 U.S.C. 112, first paragraph as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, i.e., failing to provide enabling disclosure, for the reasons set forth in Office action, Paper No. 3, item 7).

- Applicant's arguments filed in Paper No. 4 have been fully considered but they are not persuasive.
- The is still no reputable evidence of record presented to support the allegations or claims that the invention is capable of operating as indicated in the specification, that any allegations or claims of laser energy directed at a source material, item R, as described in the specification, page 10, lines 17+, as natural water, contains the necessary synthesis of for example, N-13, to produce the results depicted in the equations listed on pages 33, 34.
- It appears to be the inventor's assertion is that the results of laser energy directed at sources of water will induce a nuclear reaction and result in the production of radioisotopes. To support this assertion the applicant directs the examiner to the specification, page 8, lines 2-5, and the applicant is attempting to add information that was not in the original disclosure, for example, in order to effectively cause the reaction to occur, the intensity of the laser should be increased by narrowing the laser beam to as small a spot size as possible. It is noted that the applicant cannot use a subsequent specification amendment to set forth subject matter in order to make the original specification more complete.

- In response to Office action, Paper No. 3, objections relating to means for  incorporating an optical laser system to achieve the claimed nuclear reactions, the applicant directs the examiner to the specification, page 9, lines 15, 16, that states **it is possible to incorporate part or whole of the optical system (10) into a nuclear reaction section (30) as occasion demands.** The objection still stands in that the applicant has not provided any evidence as to what or in what manner are such **occasions** defined or quantified.
- Page 17 of the specification states that when water is the target material source, N-13 is produced and other materials such as, nitric oxide, ammonia and nitrogen molecules adhere to copper surfaces. There is no evidence of record for making these assumptions. In Paper No. 4, the applicant directs the examiner to specification page 17, page 18, lines 11+ as a basis of support for these assertions. It is noted that in citing these sections of the original specification, the applicant has attempted to introduce new matter relating laser details, such as a) **pulse width of 7.0 TW at an instantaneous maximum output,** b) **spot size of laser narrowed to about 10 microns at a converging point,** c) **intensity of the laser at the converging point reaches 10 power 18 to 10 power 19 Watts/cm².**
- In response to Office action Paper No 3, page 4, first paragraph providing references to the use of lasers in eye surgery without any evidence of the applicant's claimed nuclear reactions between lasers and water in the form of vitreous humor present in the eye, the applicant uses arguments relating to

methods of operation for the claimed invention which is an **apparatus** per se and can be considered as 'just sitting on a shelf' for the purposes of comparison to other similar types of equipment / apparatus.

- The applicant states in Paper No. 4, page 6, line 10, that laser used in eye surgery do not (are incapable) produce any radio-active isotopes; the applicant has not provided any reportable evidence to substantiate this assertion.
- The applicant has not addressed the issues raised in Office action, Paper No. 3, relating to original specification, page 18, lines 1+, relating to collecting and discriminating means for **only P-1 molecules**.
- The applicant states in Paper No. 4 in response to issues raised relating to the original specification page 18, lines 21+ concerning radiation sources for shielding facilities, the applicant states that **nuclear species, and additional nuclear species are generated**, without providing any factual information on means for producing **any** nuclear species.
- Relating to office action, Paper No. 3 issues related to defining specification terms **efficient nuclear reaction, operating parameters for establishing optimal molecule cluster size**, the applicant has not provided any justification for these specification statements in page 7 responses of Paper No. 4.
- The applicant's response to issues relating to original specification, page 24, lines 12+ statements concerning operating mechanisms for producing a range of charged particles, and specification page 24, lines 17-24 relating to monitoring

and controlling means, are unsatisfactory; the applicant's response has merely resorted to general information relating to nuclear reactions.

- In response to office action Paper No. 4, issues relating to the theoretical basis for assertions concerning time periods of operation and the means for achieving the claimed time periods, the applicant has attempted introduced new information not included in the original specification, such as **introducing material before laser irradiation by synchronizing, introduction of material with one prior pulse of the laser**. This response is considered to be unsatisfactory in addressing the concerns raised in Paper No.4.
- In response to Office action Paper No. issues relating to the original specification page 33, line 12, page 35, lines 3 to 8, concerning the basis for claiming that the applicant's invention can result in particular nuclear reactions shown on page 35 equations, the applicant argues that **nuclear accelerating device experimentation** is the justification for the claimed nuclear reactions. It is the examiner's position that a) **nuclear accelerating device experimentation** is not mentioned in the original specification, and b) the applicant's assertion that the **concept** statements contained in claim 1 is an inadequate basis for justifying the claimed nuclear reactions.

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The applicant's specification contains assumptions and speculation as to how in what manner, the invention will operate. Indeed, the applicant appears to be basing the operativeness of his invention primarily on various approximations, estimations, assumptions, etc., and therefore it is considered that the examiner has not been provided with an adequate response to the issues as set forth in Office action Paper No. 3, item 7.

Note that the disclosure must enable a person skilled in the art to practice the invention without having to design structure not shown to be readily available in the art: In re Hirsch, 131 USPQ 198.

In summary, it is thus considered that the examiner (for the reasons set forth above) has set forth a reasonable and sufficient basis for challenging the adequacy of the disclosure. The statute requires the applicant itself to inform, not direct others to find out for themselves: In re Gardner et al, 166 USPQ 138, In re Scarbrough, 182 USPQ 298.

II

6). Claims 1, 2 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility for the reasons set forth in Office action, paper No. 3, item 8).

The reasons the invention as disclosed is inoperative are the same as the reasons set forth in section 5) above as to why the specification is objected to and the reasons set forth in section 5) above are incorporated herein.

There is no reputable evidence of record to indicate the invention has been reduced to the point of providing in current available form, an operative nuclear fusion device based on directing an optical laser light at a water source in a vacuum vessel produce radioisotopes.

The applicant at best, has set forth what may be considered a concept or an object of scientific research. However, it has been held that such does not represent a utility within the meaning of 35 USC 101, See *Brenner v. Manson*, 148 USPQ 689.

Additionally, it is well established that where as here, the utility of the claimed invention is based on allegations that border on the incredible or allegations that would not be readily accepted by a substantial portion of the scientific community, sufficient substantiating evidence of operability must be submitted by the applicant. Note *In re Houghton*, 167 USPQ 687 (CCPA 1970), *In re Ferens* 163 USPQ 609 (CCPA 1969), *In re Puharich v. Brenner*, 162 USPQ 136 (CADC 1969), *In re Pottier* 152 USPQ 407 (CCPA 1967), *In re Rushkin*, 148 USPQ 221 (CCPA 1966), *In re Citron*, 139 USPQ 516 (CCPA 1963), and *In re Novak*, 134 USPQ 335 (CCPA 1962).

(11)

7). Claims 1, 2 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The reasons that the invention as disclosed is not enabling are the same as the reasons set forth in section 5) above as to why the specification is

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objected to and the reasons set forth in section 5) above are accordingly incorporated herein.



8). Claims 1, 2 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, for the reason's set forth in office action Paper 3, item 10).

Applicant's arguments filed paper No. 4, page 3 have been fully considered but they are not persuasive. Specifically, referring to claim 1 there is no proper support in the original disclosure for claimed nuclear reaction based on source materials disclosed (natural water) for using a laser optical system as the irradiating means. In the applicant's arguments, the examiner is directed to page 10, lines 17-24, and page 13, lines 7-18, for the support for the claimed nuclear reaction. It is the examiner's opinion that the cited sections of the specification merely state that **it is feasible to bring about a nuclear reaction** without providing any practical evidence to support this alleged **feasibility** of a nuclear reaction.

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TV

9). Claim 1, 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Whittlesey (U.S. 3,378,446) for the reasons set forth in Paper No. 3, item 12.

Applicant's arguments filed in Paper No. 4 have been fully considered but they are not persuasive. The applicant appears to be basing arguments comparing **operating methods and processes** rather than whether the **apparatus** disclosed in the reference is capable of functioning and operating in the manner claimed.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **for obtaining motion energy, Coulomb explosion of a cluster, plurality of laser irradiations**) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to the applicant's arguments that the reference does not disclose a **reaction product generated by other nuclear reactions** is moot, as the applicant's specification has failed to provide evidence for such reactions to occur. The examiner repeats earlier issues raised in Office action paper No. 3 that a) the specification is vague, indefinite and incomplete as to how and in what manner the claimed nitrogen, oxygen reactions using protons are derived (see equations on page 34 of the original specification), b) referring to Figure 1 of the original disclosure it is not shown how and in what manner does the single laser beam (item L-10) avoid scattering in the vacuum chamber (item F) to develop enough energy to hit nitrogen, carbon, oxygen, neon atoms to cause the claimed nuclear reactions to occur.

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The applicant's arguments in Paper No. 4, pages 10, 11, has focused on the manner in which the prior art Whittesley reference apparatus works in the absence of providing how and in what manner the applicant's claimed invention can provide the claimed nuclear reactions and nuclear products.

It is noted that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art apparatus" if the prior art teaches all the structural limitations of the claim. *In re Masham*, 2 USPQ2d 1647.

Claims directed to apparatus must be distinguished from prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

Apparatus claims cover what a device *is*, not what a device *does*. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP§ 2115, a recitation in a claim to the material or article worked upon, does not serve to limit an apparatus claim.

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IV

10). Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hedstrom (U.S. 3,762,992) for the reasons set forth in Paper No. 3, item 13.

Applicant's arguments filed in Paper No. 4 have been fully considered but they are not persuasive. The applicant appears to be basing arguments comparing **operating methods and processes** rather than whether the **apparatus** disclosed in the reference is capable of functioning and operating in the manner claimed.

The applicant has not shown how the claimed invention defines over the reference. Specifically it is noted that the prior art Hedstrom reference, for example, operates at vacuum pressures of about 10⁻⁴ Torr (Column 3, lines 10 to 19) implying that there will be air-containing nitrogen present in the vacuum chamber. This situation corresponds the applicant's claimed invention apparatus, but does not produce the applicant's claimed nuclear reactions and nuclear products as stated for example, in the equations shown in the original specification, page 34.

11). **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

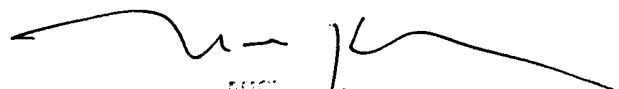
12). Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Richardson whose telephone number is (703) 305 0764. The examiner can normally be reached on Monday to Thursday from 7.00 AM to 4.30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306 4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 305 7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1113.

John Richardson, PE,

March 06 2003.


SUPERVISORY PATENT EXAMINER

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